

# UNITED STATES PATENT AND TRADEMARK OFFICE

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Application No.	Pub. No.	Pub. Name/Inventor	App. No./Pub. No.	Confirmation No.
10/145	62/111	Collins, Darryl J.	12/145	656

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Arlington, VA 22201-4714

EXAMINER

COLLINS, DARRYL J.

APPLICANT

PATENT MAILER

1/27/03

DATE MAILED: 1/27/2003

Please find below and or attached an Office communication concerning this application or proceeding.

Application No.

10/031 485

Applicant(s)

CHEN, CHENG-HUA<sup>1</sup>

## Office Action Summary

Examiner

Darryl J. Collins

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <sup>3</sup> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 22 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1 and 4-14 is/are allowed.
- 6) ☐ Claim(s) 2 and 3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application):  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

1. ☐ Notice of References Cited (PTO 802)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO 448)
3. ☐ Informal Dismissal Statements (PTO 444) (Paper 1, 2)
4. ☐ Interview Summary (PTO 413) (Paper 1, 2)
5. ☐ Notice of Informal Patent Application (PTO 151)
6. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### *Specification*

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 3 recite the limitation "the aperture stop" on page 16, lines 11 and 16, respectively. There is insufficient antecedent basis for this limitation in the claim.

### *Allowable Subject Matter*

Claims 1 and 4-14 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the independent claims, in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented. Although the prior art teaches a compound lens system for use in an array (see Martin et al (USPN 6224214 and McLaughlin (USPN 5993003)), the prior art fails to teach a front lens being characterized as having the largest diameter lens in the lens compound and further fails to teach that the exit pupil of the compound lens be bounded by and lies within the plane formed by the front lens surface as claimed in independent claim 1 of the instant invention. In fact Martin et al

specifically teach away from the exit pupil location. Martin et al teach the exit pupil location (52) as being on the image side of the front lens (49) and not bounded therein.

Independent claim 11 is deemed as patentably distinct over the prior art by the examiner as the prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the independent claims, in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. Again the prior art fails to teach the claimed subject matter of the instant invention, in particular the method of designing a compound lens system as claimed in independent claim 11. Because the prior art fails to teach a compound lens system having a front lens having a larger diameter than other lenses in the system and further having an exit pupil bounded by and in the plane of the front lens surface, a prior art rejection of the method for creating the system would be improper as outlined above.

Claims 2 and 3 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

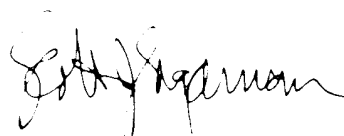
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darryl J. Collins whose telephone number is 703-308-6476. The examiner can normally be reached on 6:30 - 5:00 Monday - Thursday.

Art Unit 2873

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on 703-308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7724 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

djc  
May 19, 2003

  
Scott Sugerman  
Examiner